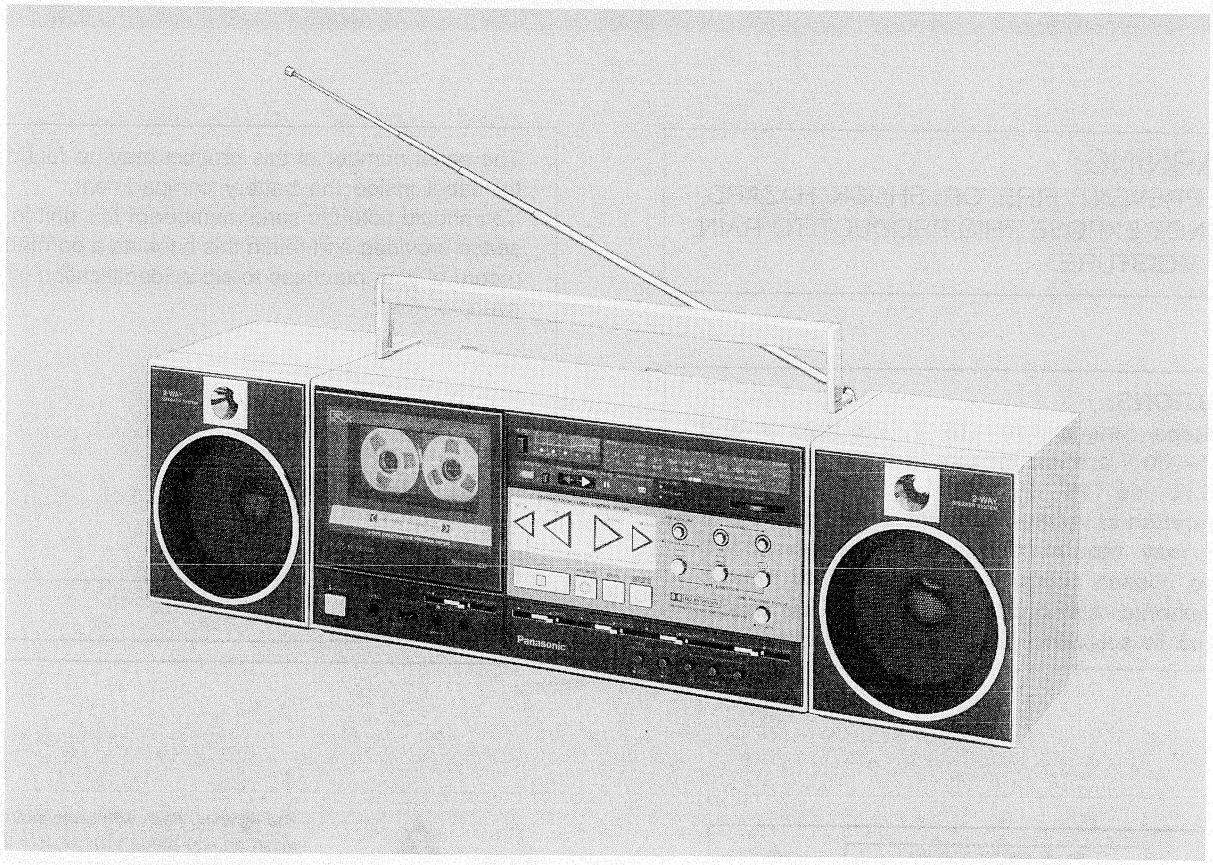
Operating Instructions

Portable Stereo Component System

MODEL NO. RX-C52



Panasonic®

Read these instructions completely before operating this set.

Thank you for purchasing this Panasonic Radio Cassette Recorder. For optimum performance, follow these operating instructions carefully.

TABLE OF CONTENTS

PRECAUTIONS 2
RECORD PREVENTION TABS (KNOCK-OUT TABS) 2
LOCATION OF CONTROLS 3
POWER SOURCE 5
SPEAKER SYSTEM CONNECTION 6
RADIO 7
TAPE PLAYBACK 8
RECORDING 9
TPS (TAPE PROGRAM SENSOR) 10
AUTO REC MUTE 10
AUTO REVERSE SYSTEM 11
ONE PROGRAM REPEAT 13
SLEEP FUNCTION 13
MIX PLAYBACK 14
TIMER PLAYBACK AND RECORDING 15
CONNECTIONS 16
MAINTENANCE 17
SUGGESTIONS FOR SAFETY 18
PRODUCT SERVICE ..... Back cover

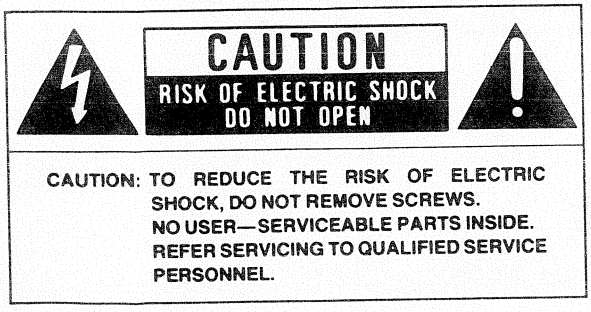
WARNING:
TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

CAUTIONS:
- **Voltage ranges 110–115 V, 200–220 V and 230–250 V are not for use in the U.S.A. (in the U.S.A. use 115–127 V)**
- **Operation at voltage settings higher than 127 V AC may require the use of a different AC plug. Please contact either a local or foreign Panasonic Authorized Servicenter for assistance in selecting alternate plug adaptor.**

The serial number of this product may be found on the label inside the battery compartment.
You should note the serial number of this unit in the space provided and retain this book as a permanent record of your purchase to aid in identification in the event of theft.

MODEL NUMBER: RX-C52

SERIAL NUMBER: _____



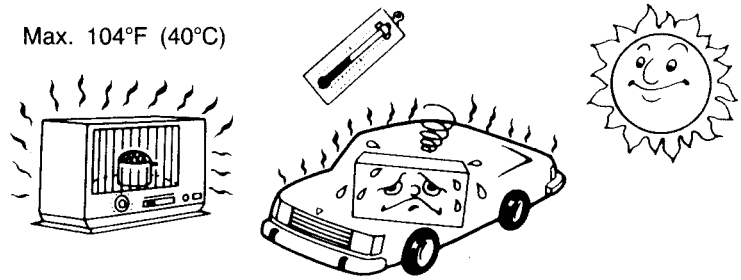
**CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE SCREWS.
NO USER—SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.**

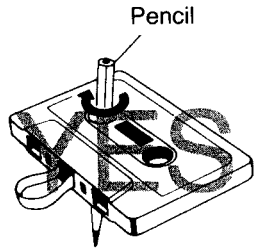
The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user of the presence of uninsulated "dangerous voltage" within the product's enclosure; that may be of sufficient magnitude to constitute a risk of electric shock to persons.

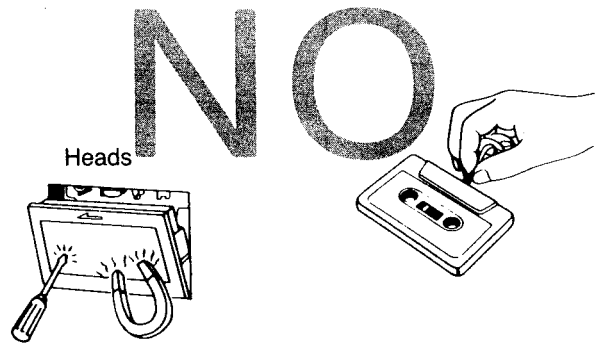
The exclamation point within an equilateral triangle is intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

PRECAUTIONS

- Avoid using or placing this unit near sources of heat. Do not leave it in an automobile exposed to direct sunlight for a long time with the doors and windows closed as this may deform the cabinet.
- Cassettes, both recorded and unrecorded, should not be stored in locations with high temperature, high humidity or direct sunlight. Never place a recorded cassette near a magnetic source, such as a magnet or a TV set as this may affect tape performance.
- Avoid using C-120 cassette tapes with this unit because they can easily broken, stretched or twisted if not used with extreme care.
- Tape looseness can be corrected by inserting a pencil through one of the cassette reels and turning it to take up the slack.
- When not in use, disconnect the power cord from the AC power outlet.

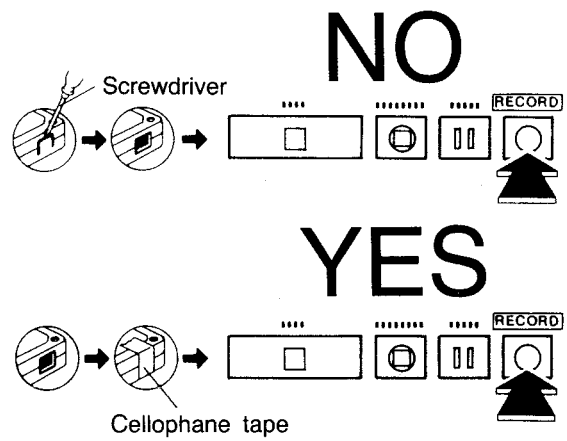


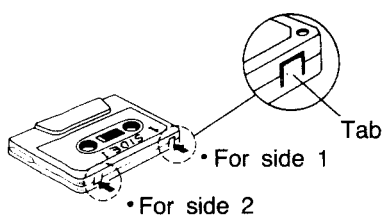




RECORD PREVENTION TABS (KNOCK-OUT TABS)

Cassettes are provided with plastic tabs (as illustrated) to prevent accidental erasing of a recording.
Recordings can be made only when the tab is intact.
There is one tab for each side of the tape. To preserve a valuable recording, the tab(s) should be broken off with a small screwdriver.
If you want to record on a track whose tab has already been broken off, use cellophane tape to cover the hole, and record.

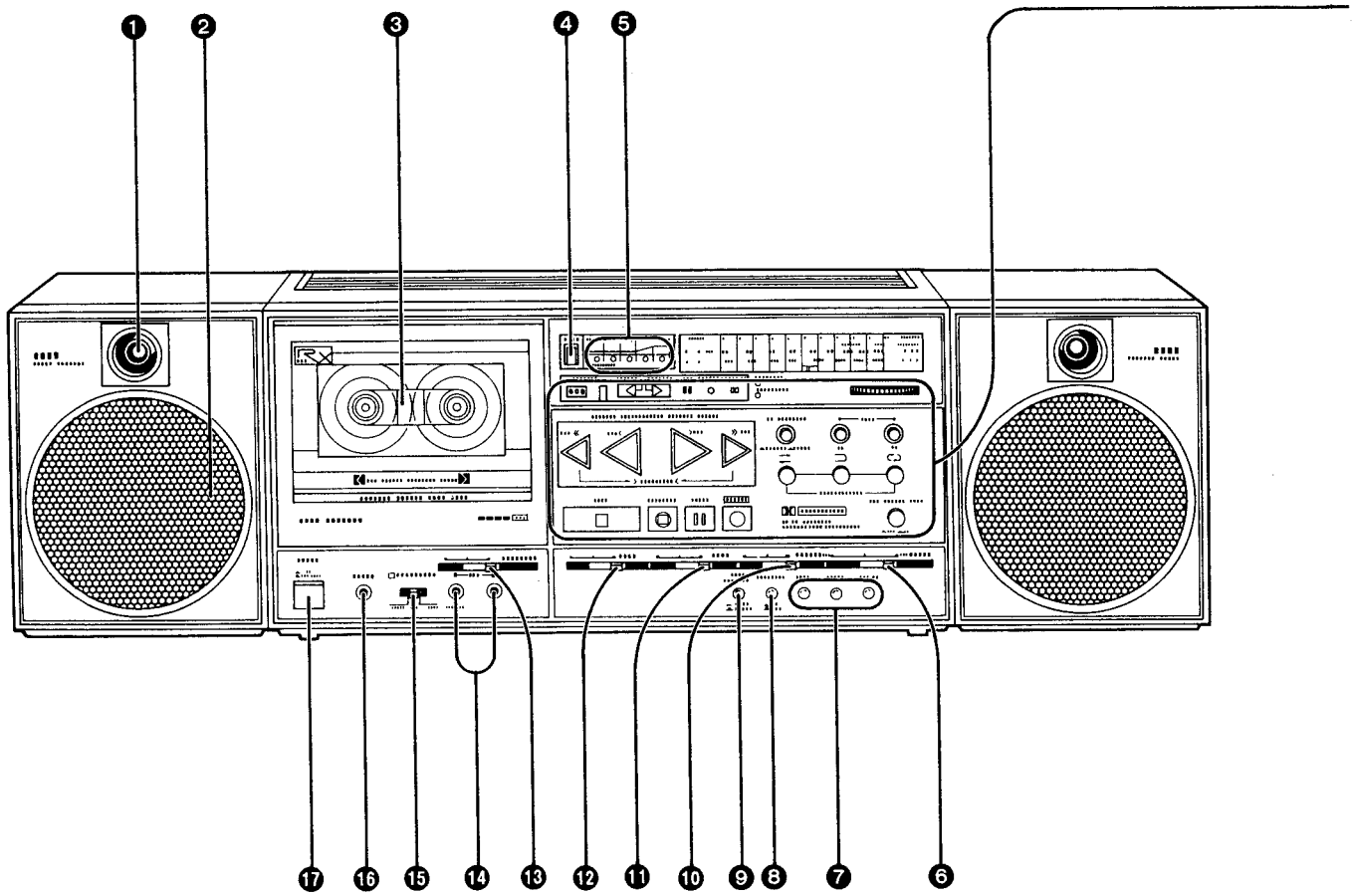




About the record prevention tabs and recording standby

- If both record prevention tabs are broken out...
The unit will not enter the recording standby mode even if the Record Button is pressed. If you continue pressing the Record Button, the Forward Indicator and Reverse Indicator will flash. Recording will not be possible on either side of the tape.

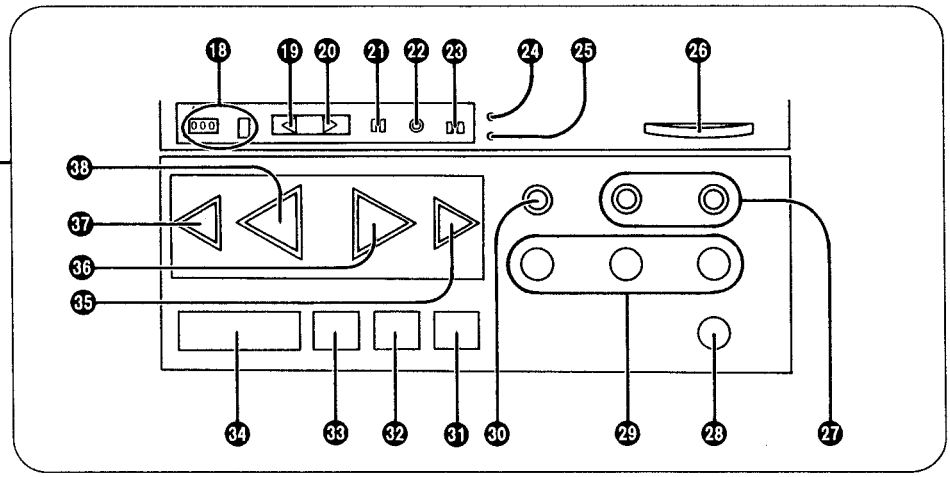
- If only one of the record prevention tabs is broken out...
If you attempt to record on the tape side without the record prevention tab, even though the unit will enter the recording standby mode when the Record Button is pressed, recording on that side of the tape will not be possible.

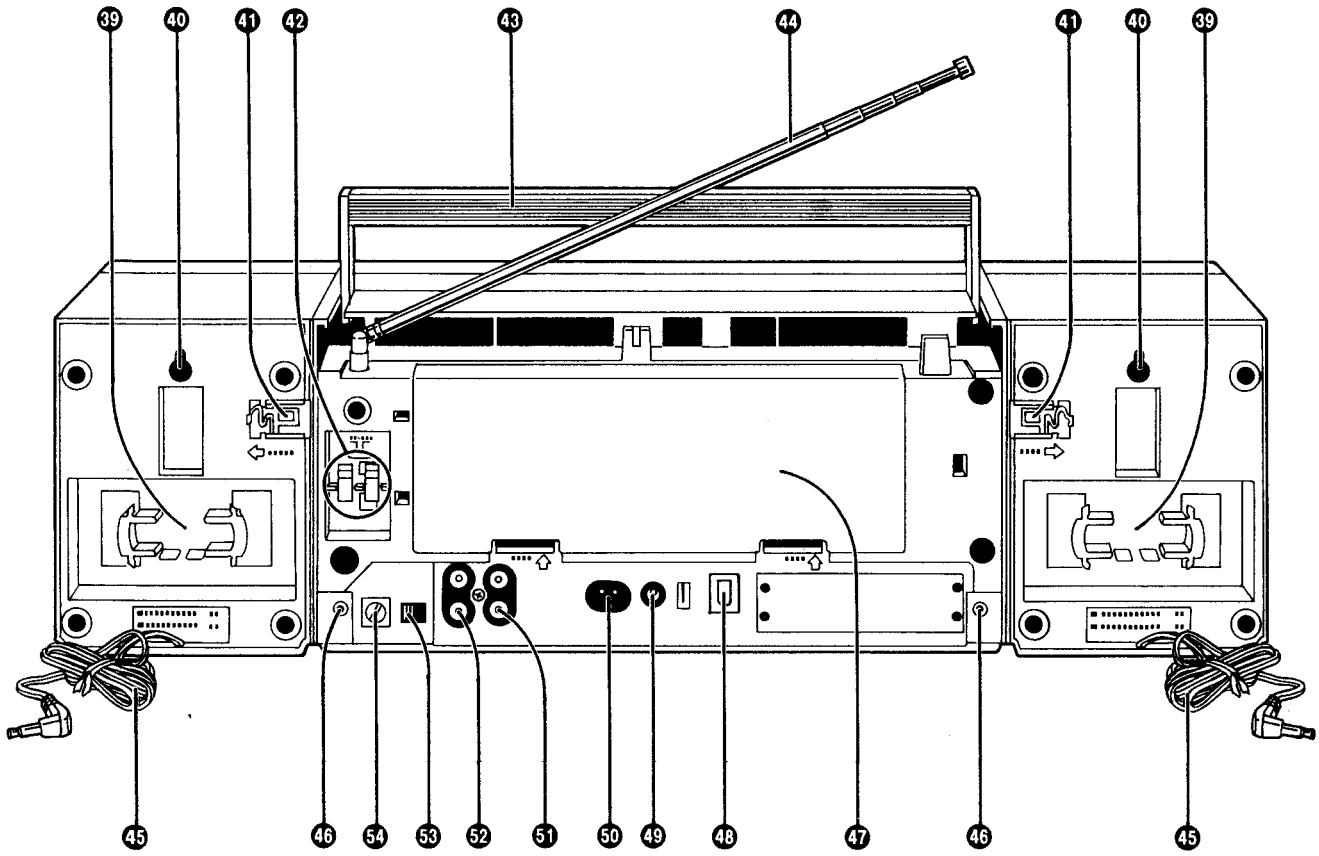


❶ **Speakers (Tweeter)**
❷ **Speakers (Woofer)**
❸ **Cassette Compartment**
❹ **Eject Button (▲ EJECT)**
❺ **Level Meter (LEVEL METER)**
❻ **Volume Control (VOLUME)**
❼ **Function Selector (FUNCTION)**
❽ ***Dolby Noise Reduction Switch (DOLBY NR)**
❾ **Tape Selector (TAPE SELECTOR)**
❿ **Balance Control (BALANCE)**
⓫ **Treble Control (TREBLE)**
⓬ **Bass Control (BASS)**
⓭ **Mixing Level Control (MIXING LEVEL)**
⓮ **Microphone Jacks (MIC)**
(Connect the Mixing Microphone to the left channel.)
⓯ **Timer Standby Selector (TIMER STANDBY)**
⓰ **Headphone Jack (PHONES)**

When using the headphones, avoid listening to sound for a long period of time at excessive volume levels, which may injure your ears.

⓱ **Power Switch (POWER)**
⓲ **Tape Counter and Reset Button (TAPE COUNTER)**
⓳ **Reverse Indicator (REVERSE)**
⓴ **Forward Indicator (FORWARD)**
㉑ **Pause Indicator (PAUSE)**
㉒ **Recording Indicator (RECORD)**
㉓ **Dolby Noise Reduction Indicator (DOLBY NR)**
㉔ **FM Stereo Indicator (FM STEREO)**
㉕ **Power/Battery Check Indicator (POWER/BATT)**
㉖ **Tuning Control (TUNING)**
㉗ **Band Selector (BAND)**
㉘ **One Program Repeat Button (ONE PROGRAM REPEAT)**
㉙ **Tape Direction Button (TAPE DIRECTION)**
㉚ **FM Mode Selector/Beat Proof Switch (FM MODE/B.P)**
㉛ **Record Button (RECORD)**
㉜ **Pause Button (PAUSE)**
㉝ **Record Muting Button (REC MUTE)**
㉞ **Stop Button (STOP)**





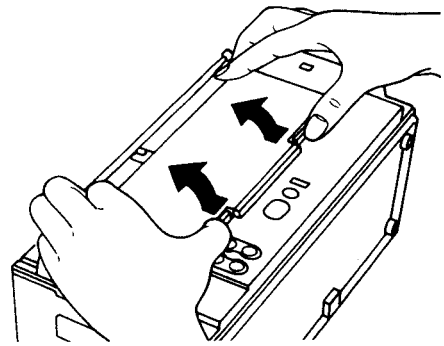
35 Fast Forward/TPS Button (≫ / TPS)
36 Forward Button (› FWD)
37 TPS/Rewind Button (TPS / ≪)
38 Reverse Button (REV ‹)
39 Speaker Cable Compartments
40 Speaker Wall Mounts
41 Speaker Release Levers (RELEASE)
42 FM External Antenna Terminals (FM ANT)
43 Handle
44 Telescopic Antenna
45 Speaker Cables
46 Speaker Jacks (IMP 3–8Ω SPEAKER)
47 Battery Compartment
48 Voltage Selector (VOLTAGE SELECTOR)
49 DC Input Jack (DC IN 13.2 V ⊖-●-⊕)
50 AC Socket (AC IN ~)
51 Line Output Jacks (LINE OUT)
52 Phono/Line Input Jacks (PHONO/LINE IN)
53 Input Selector (PHONO • LINE IN)
54 Phono Ground Terminal (⏚)

*"Dolby" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.
Noise reduction system manufactured under license from Dolby Laboratories Licensing Corporation.

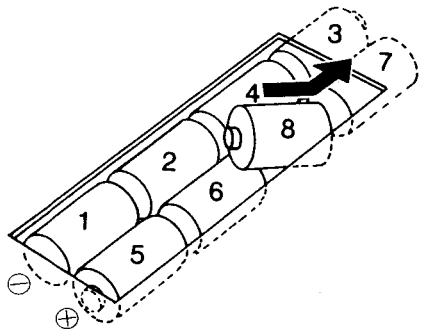
POWER SOURCE

■ Battery Operation

1) Open the Battery Compartment cover as shown in the figure.



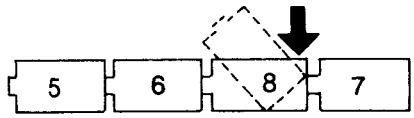
2) Insert 8 "D" size (Panasonic UM-1 or equivalent) batteries into the battery compartment, making sure that the proper polarities are maintained, and that the batteries are installed in the specified numerical order.



3) Replace the compartment cover.

•Battery removal (lower side)

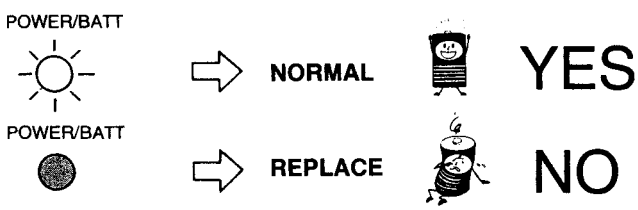
Remove the batteries as shown in the figure.



•Battery life

When the batteries are weak, the tape speed will slow down, the sound will become distorted, and the volume will decrease.

- •Press the Power Switch to "▬ ON".
- •Press the TAPE Button (FUNCTION).
- •Press the Forward Button or Reverse Button.
- •If the Power/Battery Check Indicator goes out or dims, replace all batteries with new ones.

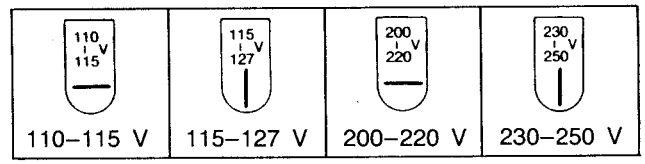


Note:
If the unit does not enter the playback mode even when the Forward or Reverse Button is pressed, the batteries are no good, replace all batteries with new ones.

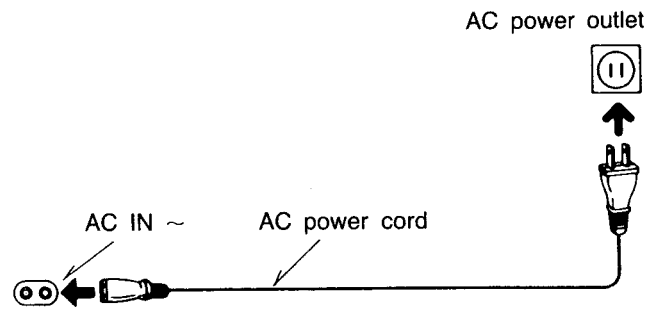
■ AC Power Operation

•Be sure to select AC voltage before applying power.

1) First, check the AC Voltage Selector to insure that it is set to the voltage which corresponds to your household AC voltage. If not, select the proper voltage by inserting a small screwdriver into the slot provided and turning the screwdriver until the desired voltage appears through the opening.



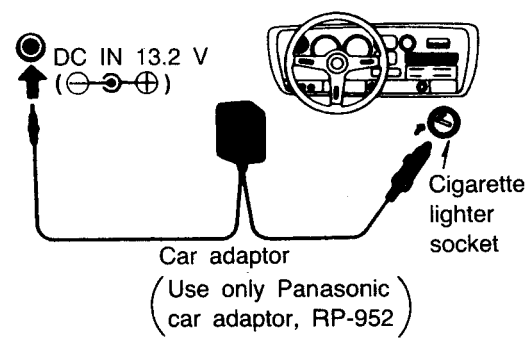
2) Connect the accessory AC power cord to the AC Socket in the unit and your household AC power outlet. Upon plugging the power cord into the AC Socket, the unit will automatically switch from battery to AC operation.



Note:
If using AC voltage other than 110–127 V, it may be necessary to use an adaptor plug.

■ Car Battery Operation

1) Insert the plug of the car adaptor cord into the DC Input Jack.
2) Plug the opposite end of the cord into the cigarette lighter socket in your car.
   Upon plugging the car adaptor cord into the DC Input Jack, the unit will automatically switch from internal battery to car battery operation.



Note:
For the connection of an adaptor cord, follow the instructions provided with the cord.

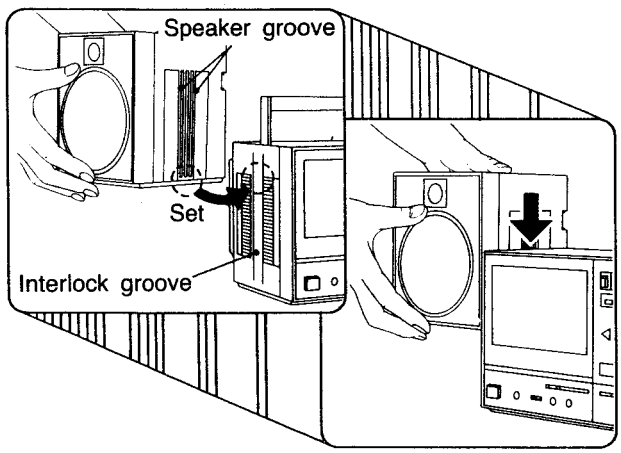
SPEAKER SYSTEM CONNECTION

This unit can be used as a one-piece portable stereo radio cassette recorder by attaching the speaker system to the main unit, or as a three-piece separate component system, with a receiver/cassette deck and a separate speaker system, by detaching the speaker system from the main unit.

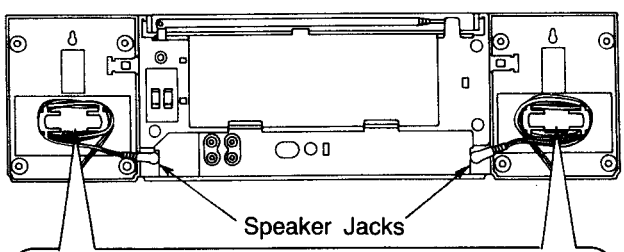
•Be sure to set the Power Switch to "■ OFF" before connecting the Speaker Cables.

■ As A One-Piece Portable Radio/Cassette Recorder

1) Align the speaker with the main unit as shown in the figure, interlock the grooves, and press down.



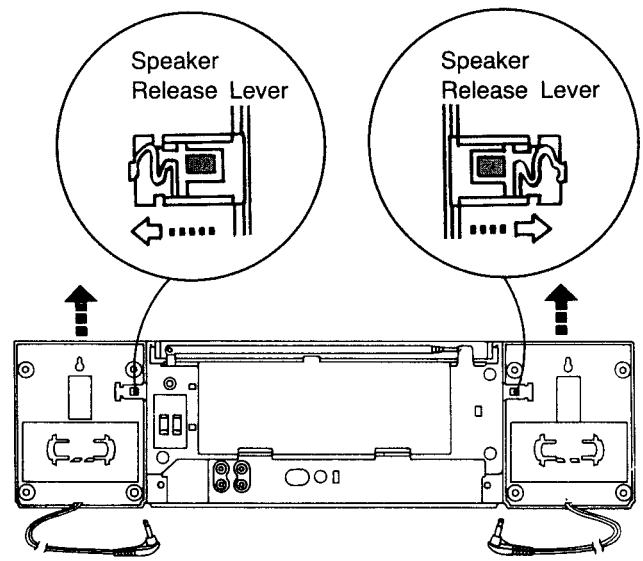
2) Remove the Speaker Cables from the Speaker Cable Compartments at the rear of the speakers, and connect the plugs to the Speaker Jacks on the main unit.



•When using the unit with the speakers attached, wind the speaker cables as shown.

■ As A Three-Piece Separate Component System

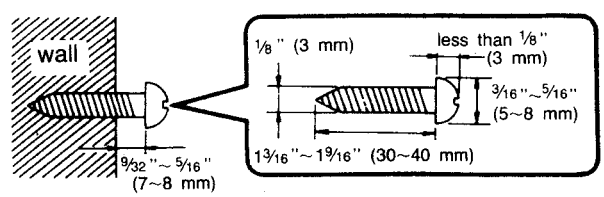
1) Disconnect the speaker plugs from the Speaker Jacks on the unit.
2) Pull the Speaker Release Levers in the direction as shown in the circles below to unlock them. Then slide the speakers in the direction of arrow to remove them from the unit.



3) After extending the Speaker Cables, once again connect their plugs to the Speaker Jacks.

■ Speaker Wall Mounts

1) Drive one screw into the wall for each speaker, as shown in the figure. Insure that both the screws and the wall can support a 44 pound (20 kg) load.
2) Mount the speakers to the wall by hanging the Speaker Wall Mounts (built into the speaker cabinet) onto the screws.



1) Press the Power Switch to "▬ ON".
   •The Power/Battery Check Indicator will light.
2) Press the RADIO Button (FUNCTION).
3) Set the Band Selector to the desired radio band (AM or FM).
4) Tune in your favorite station using the Tuning Control.
5) Set the FM Mode Selector to "▮ STEREO" or "▬ MONO".
6) Adjust the Volume, Balance, Bass and Treble Controls.
7) The radio can be turned off by setting the Power Switch to "▮ OFF/SLEEP".

Notes:
- •To receive FM stereo broadcasts, set the FM Mode Selector to "▮ STEREO". The FM Stereo Indicator will light during stereo broadcasts.
- •If FM stereo reception is poor (excessive noise, FM Stereo Indicator flickers), set the FM Mode Selector to "▬ MONO". This will reduce the noise and provide clear reception; however, the broadcast will not be heard in stereo
- •If the tape operation buttons are pressed while you are listening to a radio broadcast, the sound and Line Output may be temporarily interrupted.

■ FM AFC

This set uses an Automatic Frequency Control (AFC) circuit which locks the tuned station during FM and FM stereo reception. This assures additional stability without frequency drift.

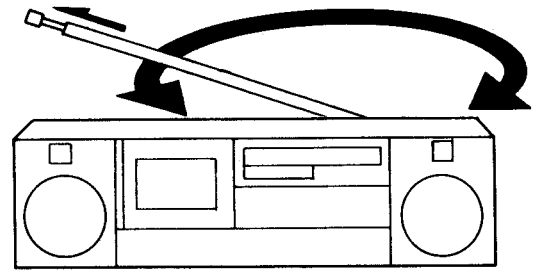
■Level Meter

The Level Meter lights to indicate the source level in each mode: radio, tape playback and recording, and even when using the unit as an amplifier with external sound sources.

■ Antennas

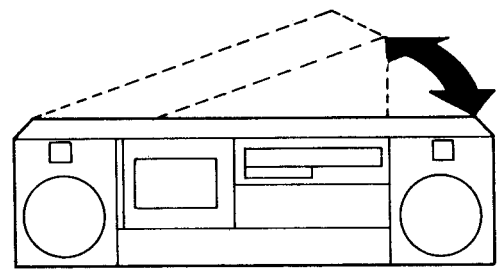
FM:

•Pull out the Telescopic Antenna and adjust its length and angle for optimum reception.

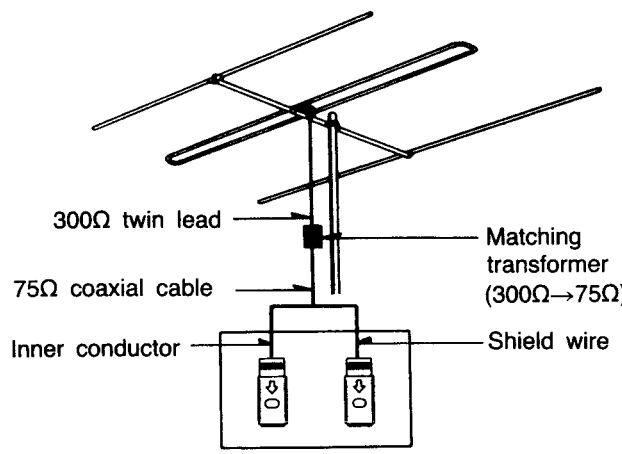


AM:

•The sensitive ferrite core antenna inside the set will provide excellent AM reception in most areas. For optimum reception, turn the set in the direction which gives the best results, since the ferrite core antenna is directional.



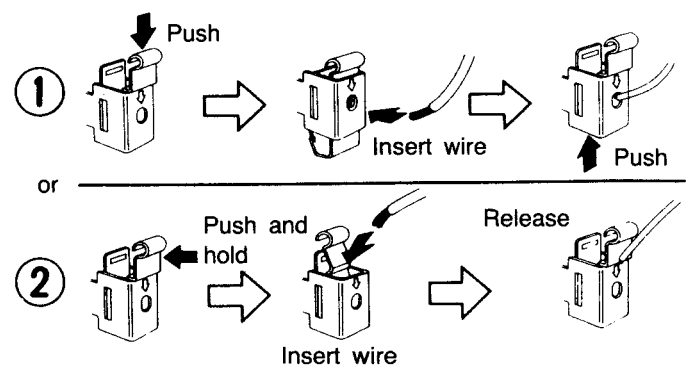
•To further improve FM reception



Note:

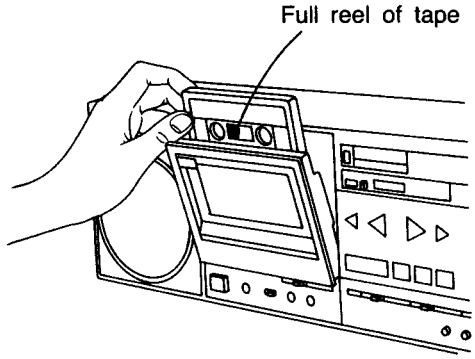
If the antenna is connected with 75Ω coaxial cable instead of 300Ω twin lead, the matching transformer is not required.

•How to Connect the Antenna Wire to the Terminals



TAPE PLAYBACK

1) Open the Cassette Compartment cover by pressing the Eject Button. Insert the cassette as shown in the figure, and then close the Cassette Compartment cover.



Note:
Make sure the exposed part of the cassette tape is face down. If it is upside down, the Cassette Compartment cannot be closed, do not try to force it shut.

2) Press the Power Switch to "▬ ON".
   •The Power/Battery Check Indicator will light.
3) Press the TAPE Button (FUNCTION).
4) Set the Tape Selector, as shown in the table below, according to the cassette tape used.

Tape Selector Settings

Tape Selector Position	Tape
▬ METAL	Metal tape
	High bias chromium tape or equivalent
▮ NORMAL	Low bias ferric oxide tape

5) Set the Dolby Noise Reduction Switch to "▬ IN" to playback a tape recorded with Dolby Noise Reduction. For other tapes, set the switch to "▮ OUT".
   •The Dolby Noise Reduction Indicator will light if the Dolby Noise Reduction Switch is set the switch to "▬ IN".
6) Press the Tape Direction Button to the desired mode.
   ⇄ : Non-reverse mode
   ⇉ : Auto reverse mode
   ↻ : Auto-continuous mode
   (Refer to page 11 "Auto-Reverse Playback".)
7) Press the Forward Button to begin tape playback.
   •The Forward Indicator will light.
   (Press the Power Switch to "▮ OFF/SLEEP" when you want the power automatically turned off upon completion of tape playback.)
8) Adjust the Volume, Balance, Bass and Treble Controls.
9) To stop the playback, press the Stop Button.
10) Press the Power Switch to "▮ OFF/SLEEP" to turn the unit off.

■ Full Auto-Stop Mechanism

During playback, recording, fast forward, or rewind when the tape comes to its end, the tape travel will automatically stop. However, as shown in the table below, if the Tape Direction Button is set to " ↻ " the Auto-Stop mechanism will not operate.

OPERATION / TAPE DIRECTION	PLAYBACK	RECORDING
⇄	YES	YES
⇉	YES (Following playback of both sides)	YES (Following recording of both sides)
↻	NO	YES (Following recording of both sides)

Note:
If the Power Switch is "▬ ON", the power to the unit will not be turned off even after the Auto-Stop mechanism has operated. In this case, be sure to set the switch to "▮ OFF/SLEEP" to turn off the power.

■ Rewind Auto Play

The rewind auto play function allows you to easily and automatically listen to a tape from its beginning.
•During forward playback; While holding the Forward Button pressed, press the TPS/Rewind Button [the Forward Indicator will flash].
•During reverse playback; While holding the Reverse Button pressed, press the Fast Forward/TPS Button [the Reverse Indicator will flash].
The tape will be automatically rewound to its beginning, and playback will begin.

■ Dolby NR

This unit includes Dolby Noise Reduction which reduces tape noise to a remarkable degree.
Briefly, the system works as follows:
At low sound levels (where tape noise is most noticeable), the high frequency (treble) portion of the sound is recorded at a higher level.
During playback, the same high frequency portion of the sound is played back at a lower level. Since tape noise is introduced during recording and consists mainly of high frequencies, the tape noise is also reduced during playback. In effect, the sound is boosted during recording, then the sound along with the tape noise is reduced during playback. The result is unaltered sound with reduced tape noise.

•Tape Counter and Reset Button
The digits return to "000" when the Reset Button is pressed. The digits advance with the tape to provide a reference to quickly find a desired portion of the tape.

- This unit has an Automatic Level Control (the recording level is automatically adjusted).
- This unit has a variable-sound monitor system, which means that the monitor sound can be adjusted using the Volume Control without affecting the recording itself.

■ Recording Radio Broadcasts

1) Follow the procedure described in "RADIO", on page 7.
2) Insert the cassette into the Cassette Compartment.
3) Set the Tape Selector according to the cassette tape used.
4) Set the Dolby Noise Reduction Switch to "▂ IN", if this feature is desired.
   - The Dolby Noise Reduction Indicator will light if the Dolby Noise Reduction Switch is set to "▂ IN".
5) Press the Tape Direction Button to the desired mode.
   ⟶ : Non-reverse mode
   ⇄ or ⟲ : Auto reverse mode
   (Refer to page 12 "Auto-Reverse Recording".)
6) Press the Record Button. (The tape will not move.)
   - The Recording Indicator and Pause Indicator will light.
7) Press the Forward Button and the recording will begin.
   - The Forward Indicator will light.
8) To stop the recording, press the Stop Button.
9) Press the Power Switch to "▮ OFF/SLEEP" to turn the unit off.

•Beat Proof Switch

When an AM broadcast is recorded, the Beat Proof Switch can be used to reduce unwanted "beat" signals (whistle) which are sometimes present. Set the switch to whichever position best reduces these "beat" signals.
(▮ is position ▮, ▂ is position ▮▮.)

■ Recording through External Microphones (Refer to page 16)

1) Connect the optional external microphones to the Microphone Jacks.
   - For monaural recording, connect a microphone to the left channel only.
2) Depress the TAPE Button (FUNCTION).
3) Follow the procedure described in steps (2)–(9) of "Recording Radio Broadcasts".

Note:
Use two microphones which have the same specifications.

■ Recording from External Equipment (Refer to page 16)

1) Connect the output terminal of the external equipment to the Microphone Jacks or Phono/Line Input Jacks.
2) Press the Power Switch to "▂ ON".
3) Set the Function Selector and the Input Selector to the position which corresponds to the source.
4) Follow the procedure described in steps (2)–(9) of "Recording Radio Broadcasts".

Notes:
- After setting the Volume Control of the unit to its minimum position, adjust the volume and tone of the stereo amplifier.
- If the volume level of the TV or other equipment is too loud during recording, the recorded sound will be distorted. Set the volume of the TV or other equipment to the usual listening level.
- When setting the Power Switch, you may hear a clicking through the speaker. Therefore, always set the volume control of the stereo amplifier to its minimum position before setting this switch.

■ Monitoring

The monitor system enables you to listen, through the speakers or headphones, to the sound as it is being recorded. Sound can be monitored in the following ways:
- When recording from a sound source connected to the Microphone Jacks or Phono/Line Input Jacks, the sound being recorded can be monitored through the speakers or headphones.
- When recording through external microphones, use the headphones to monitor the sound.
  If it is necessary to adjust the volume level of the sound being monitored, do so by using the Volume Control.

Note:
If external microphones are placed too close to the speakers, feedback (howling) may be heard. If so, place the microphones as far away from the speakers as possible, or reduce the volume.

■ Erasure of Recordings

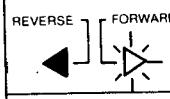
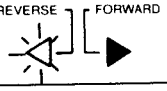
When recording, previously recorded signals on the tape will be erased automatically.
To erase a tape without re-recording, use the following procedure. (Make no connections to the Phono/Line Input Jacks.)
1) Set the Power Switch to "▂ ON".
2) Press the LINE/PHONO Button (FUNCTION)
3) Set the Input Selector to "LINE IN".
4) Set the Tape Selector according to the cassette tape used.
5) Press the Record Button and Forward Button.

TPS (TAPE PROGRAM SENSOR)

The Tape Program Sensor system can be set to automatically find and playback a predetermined selection on a recorded cassette tape.

Procedure:

1) Follow the same procedure as described in step (1)–(8) of "TAPE PLAYBACK".
2) Press the Fast Forward/TPS Button or the TPS/Rewind Button.

Program / Direction	Next	Present
Forward 	Fast Forward/ TPS Button ≫/TPS	TPS/Rewind Button TPS/≪
Reverse 	TPS/Rewind Button TPS/≪	Fast Forward/ TPS Button ≫/TPS

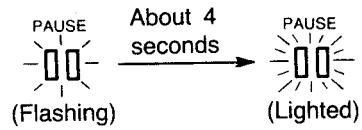
In the following instances the Tape Program Sensor system may not operate normally. This does not, however, indicate a failure.

- With tapes of conversations having a great many gaps in the dialog.
- With tapes having tracks with extremely low sound levels.
- With tapes having portions among the tracks where no sound has been recorded.
- With tapes having intervals of less than 4 seconds long.
- With tapes having a high level of noise during the intervals.
- When less than 10 seconds separate the program you are listening to and the next program when you want to move on to listen to the next program.

AUTO REC MUTE

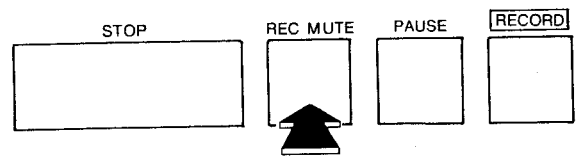
The TPS function will operate with most pre-recorded tapes. For self recorded tapes, follow the procedure below.

1) Set the unit in the recording mode. (Refer to "Recording Radio Broadcasts" on page 9.)
2) When the selection you are recording comes to its end, press the Record Muting Button. The Pause Indicator will flash, and a non-recorded interval of about 4 seconds duration will be automatically recorded on the tape, after which the unit will enter the recording standby mode (the Pause Indicator will light).



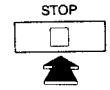
TO CREATE A NON-RECORDED PORTION LONGER THAN 4 SECONDS:

Press the Record Muting Button continuously for longer than 4 seconds. The non-recorded portion will continue for as long as the button is held pressed. When the button is released, the unit will enter the recording standby mode.



TO CREATE A NON-RECORDED PORTION SHORTER THAN 4 SECONDS:

During the auto rec mute operation, press one of the operation buttons for about 2 seconds.

Operation	Button
When you wish to begin recording	≫FWD or REV≪
Be sure to press the button of the direction whose indicator is lit.	
To temporarily interrupt recording (recording standby mode)	PAUSE
To stop the tape	STOP 

TO CREATE A NON-RECORDED PORTION FROM THE RECORDING STANDBY MODE:

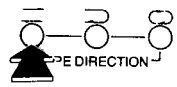
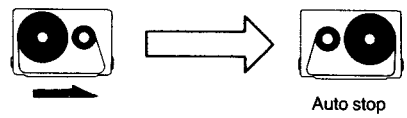
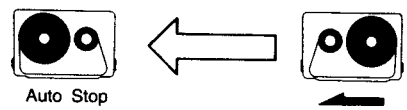
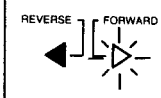
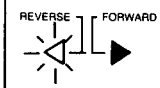
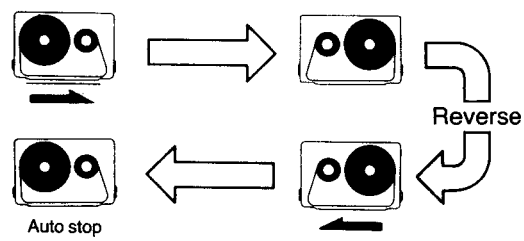
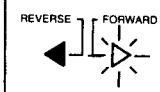
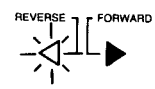
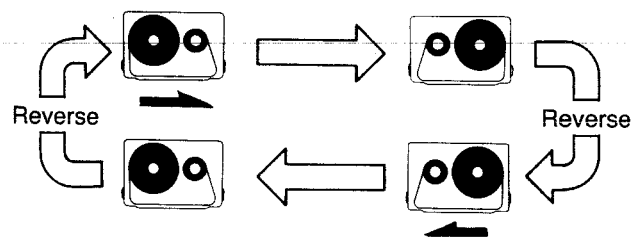
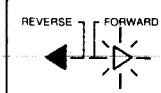
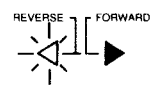
While pressing the Record Muting Button, press the lit direction button (Forward or Reverse) for about 2 seconds. The non recorded portion will continue for as long as the Record Muting Button is pressed.

AUTO REVERSE SYSTEM

This unit is equipped with an auto reverse function that allows you to perform two-side playback, repeat two-side playback, or two-side recording.

- The monitored sound will be temporarily interrupted during the operation of the auto-reverse function.

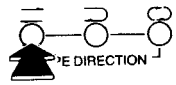
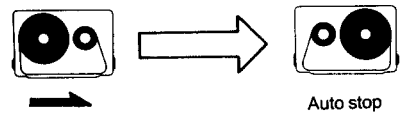
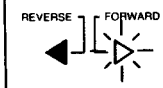
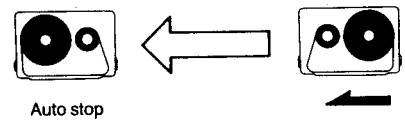
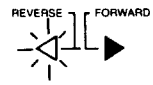
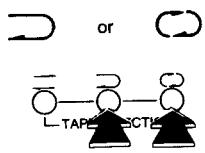
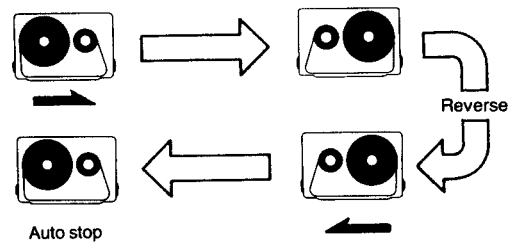
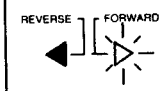
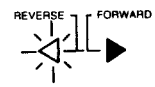
■ Auto-Reverse Playback

Playback Mode	Tape Direction Button	Tape Direction	Reverse/ Forward Indicators
To listen to side 1 or side 2 (one-side playback)		•Start from forward direction (side 1)  Auto stop •Start from reverse direction (side 2)  Auto Stop	 
To listen to side 1 and side 2 with auto reverse (two-side playback)		•Start from forward direction (side 1)  Reverse Auto stop •If playback is started from reverse direction (side 2), side 2 only will be played, after which auto stop will operate.	 
To listen to side 1 and side 2 repeatedly (repeat two-side playback)		•Start from forward direction (side 1)  Reverse Reverse •Playback will be repeated until Stop Button is pressed.	 

- Tape direction can be reversed manually during playback by pressing one of the direction buttons (Forward or Reverse). However, such manual reverse is not possible during TPS operation.

Note:
One Program Repeat Button is set to "▬ ON", the non-recorded leader tape will be detected at the tape's end, and the one program repeat function will be given priority. As a result, the auto-reverse function will not operate in this case.

■ Auto-Reverse Recording

Recording Mode	Tape Direction Button	Tape Direction	Reverse/ Forward Indicators
To record side 1 or side 2 (one-side recording)		•Start from forward direction (side 1)  Auto stop	
		•Start from reverse direction (side 2)  Auto stop	
To record side 1 and side 2 with auto-reverse (two-side recording)		•Always start from forward direction (side 1)  Reverse Auto stop •If recording is started from reverse direction (side 2), side 2 only will be recorded, after which auto stop will operate.	 

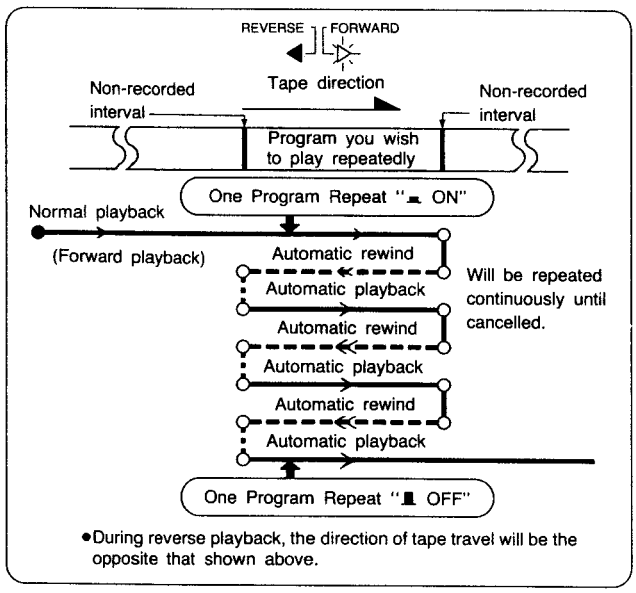
Notes:

- A tape cannot be recorded on a side whose record prevention tab has been broken out. When performing two-side recording, be sure to confirm that the record prevention tabs for both sides of the tape are intact.
- When performing two-side recording, remember that if the cassette tape used has a leader tape, recording will not be possible on that portion of the tape.

ONE PROGRAM REPEAT

Upon completion of the playback of one program, the tape is rewound automatically to the beginning of the program, and playback is repeated continuously.

1) Set the unit in the playback mode.
2) Set the One Program Repeat Button to "▬ ON".
   - When not in using the ONE PROGRAM REPEAT, set the One Program Repeat Button to "▮ OFF".
3) When the playback of that selection is completed, the tape will be automatically rewound to the beginning of the selection, and playback will begin again; this process will be repeated continuously.
4) To cancel the one program repeat operation, set the One Program Repeat Button to "▮ OFF". The unit will return to the normal playback mode.
   - During operation of the one program repeat function, power to the unit will not be cut off even if the Power Switch is switched to "▮ OFF/SLEEP".



- During reverse playback, the direction of tape travel will be the opposite that shown above.

In the following cases, the one program repeat function may not operate properly, but this is not the result of equipment malfunction.

- When batteries become depleted.
- When the non-recorded interval between selections is less than 4 seconds.
- When a selection contains passages recorded at extremely low sound levels, or non-recorded portions.
- When the One Program Repeat Button is set to "▬ ON" immediately prior to the end (within 5–6 seconds before the end) of the selection you wish to play back repeatedly.

SLEEP FUNCTION

The Power Switch can be used as a "sleep timer" when set to the "▮ OFF/SLEEP" position.
This "sleep" position, which functions only when the tape is running, is very convenient when you want to go to sleep while recording or listening to a tape or radio broadcast. The tape auto stop feature is employed to turn the power off when a cassette tape of a desired length reaches the end.

■ How to listen to or record a radio broadcast while sleeping

1) Press the Power Switch to "▬ ON".
2) Insert a cassette tape of the desired length.
   (The sleep time is determined by the length of the tape.)

Cassette type	One-way playback (recording) time
C-30	15 minutes
C-60	30 minutes
C-90	45 minutes

3) Depress the RADIO Button (FUNCTION) and select the desired radio broadcast. (See page 7.)
4) - While you listen to a radio broadcast, press the Forward Button or Reverse Button.
   - When you record a radio broadcast (See page 9.), press the Record Button and then the Forward Button or Reverse Button.
5) Press the Power Switch to "▮ OFF/SLEEP".
6) You can listen to (or record) a radio broadcast for as long as the tape runs.
7) When the tape reaches the end, the Auto Stop Mechanism will function to turn the power off automatically.

Notes:
- The sleep function operates in one direction only; during its use, auto-reverse will not operate.
- Be sure to press the One Program Repeat Button to "▮ OFF".

MIX PLAYBACK

Mixing is the combination of a voice or instrumental sound (through a microphone connected to the Mixing Microphone Jack) and the sound from a tape, a radio broadcast or external equipment connected to the Phono/Line Input Jacks.

- Connect the microphone to the Mixing Microphone Jack. (Left Channel)
  The sound from the microphone can be heard through both speakers.

CONTROLS \ COMBINATIONS (TO MIX)		Tape Playback & Microphone	Radio Broadcasts & Microphone	Equipment connected to the Phono/ Line Input Jacks & Microphone
1	Power Switch	▬ ON	▬ ON	▬ ON
2	Function Selector	TAPE	RADIO	LINE/PHONO
3	Input Selector	—	—	Stereo amplifier... ..."LINE IN" Record player... "PHONO"
4	Band Selector	—	FM or AM	—
5	Tuning Control	—	Tune in your favorite station	—
6	FM Mode Selector	—	Set for the source	—
7	Tape Selector	Set for the tape used	—	—
8	Dolby Noise Reduction Switch	Dolby NR recorded tape...▬ IN	—	—
9	Tape Direction Button	Select the desired mode	—	—
10	Tape Function Button	Forward Button or Reverse Button	—	—
11	Mixing Level Control	Adjust the mixing mic volume		
12	Volume Control	Adjust both the volume of the mixed source and the mixing mic		
	Balance Control	Adjust		
	Bass/Treble Control	Adjust		

Note:
When you do not intend to mix the sound, unplug the microphone and set the Mixing Level Control to "MIN".

TIMER PLAYBACK AND RECORDING

- The timer playback and recording functions are designed to automatically start from the forward direction. As a result, be sure that the fully wound tape hub is on the left side when inserting a cassette tape in the unit.
- When performing timer recording, confirm that the record prevention tabs are intact on the tape cassette you use.

■ Timer Playback

1) Connect as shown in the figure below.
2) Set the power switch of the timer to "ON".
3) Follow the same procedure as described in steps (1)–(8) of "TAPE PLAYBACK", on page 8.
4) Press the Stop Button.
5) Set the timer to the time that the playback is to start.
6) Set the timer switch to "ON".
   (to switch the power on at the desired time)
7) Set the Timer Standby Selector to "PLAY"

The power will be turned on and playback will begin at the preset time.

- Refer to the table below for the cassette tape to be used.

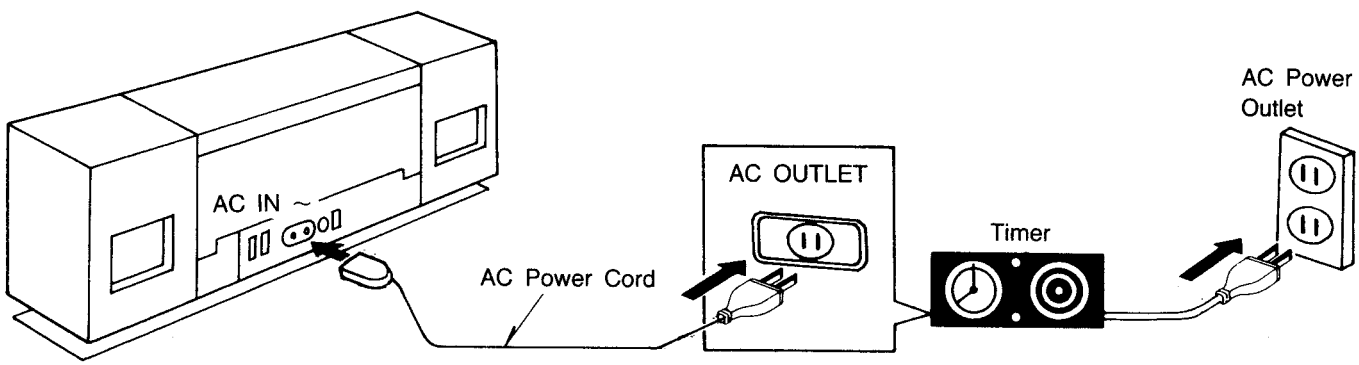
Cassette tape	Time on one side
RT-30 (C-30)	15 minutes
RT-60 (C-60)	30 minutes
RT-90 (C-90)	45 minutes

■ Timer Recording of Radio Broadcasts

1) Connect as shown in the figure below.
2) Set the power switch of the timer to "ON".
3) Follow the procedure described in steps (1)–(4) of "Recording Radio Broadcasts", on page 9.
4) Set the timer to the time that the recording is to start.
5) Set the timer switch to "ON".
   (to switch the power on at the desired time)
6) Set the Timer Standby Selector to "RECORD".

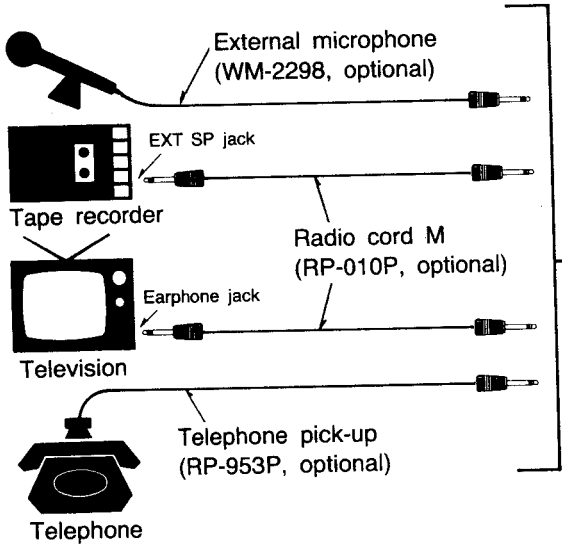
The power will be turned on, and recoding will begin at the preset time.

Note:
Following use, be sure to set the Timer Standby Selector to the "OFF" position. When the selector is left at the "RECORD" position, if a tape with intact record prevention tabs is inserted in the unit and the Power Switch is set to "▬ ON", the unit will enter the recording mode, and the tape's contents may be erased by mistake.



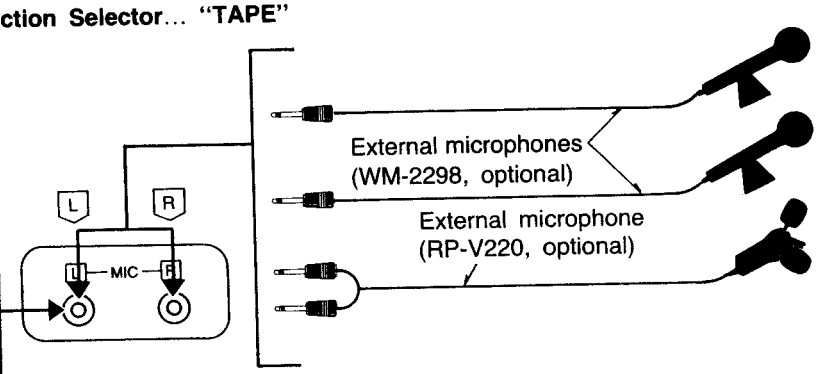
CONNECTIONS

■ Monaural Recording



■ Stereo Recording

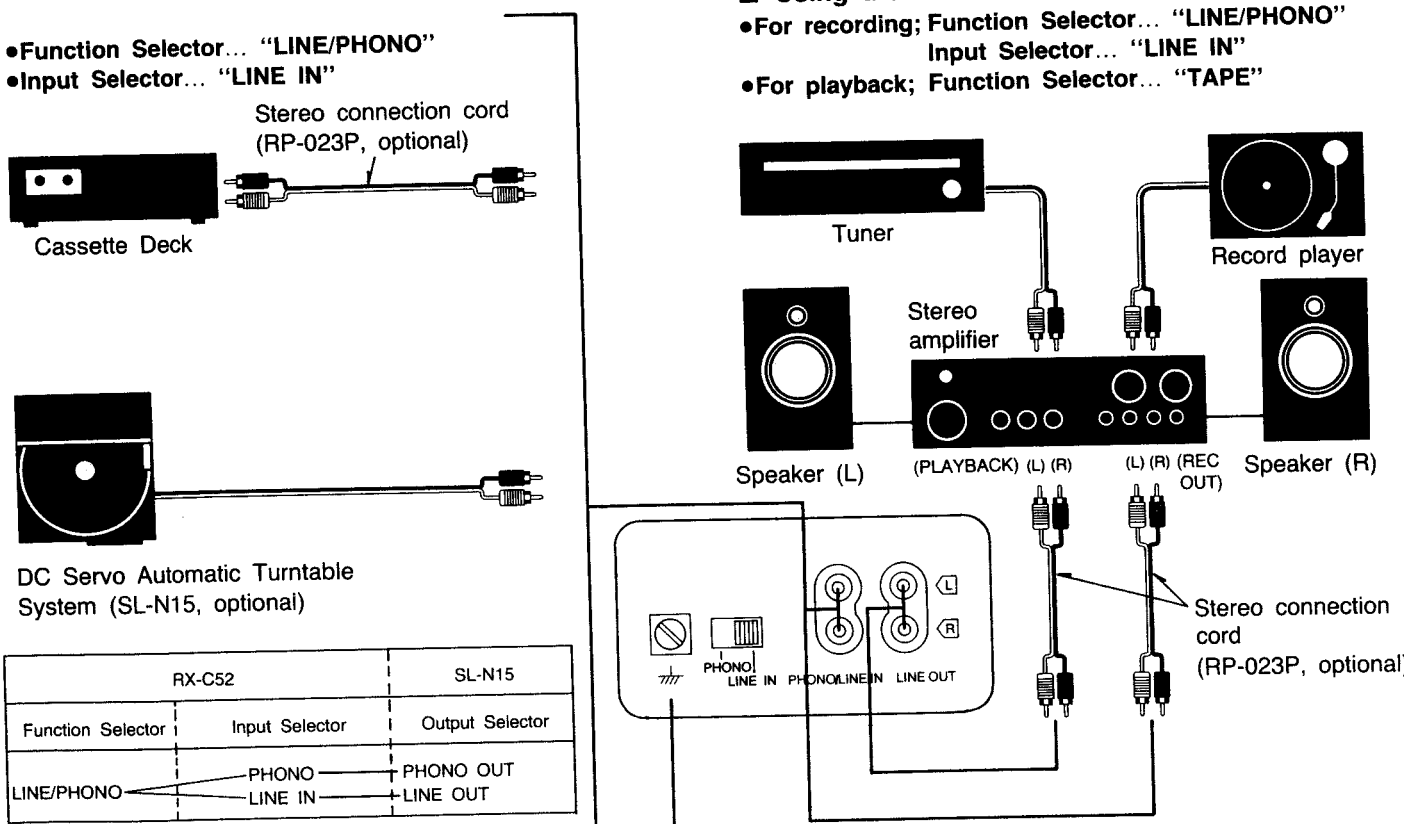
Function Selector... "TAPE"



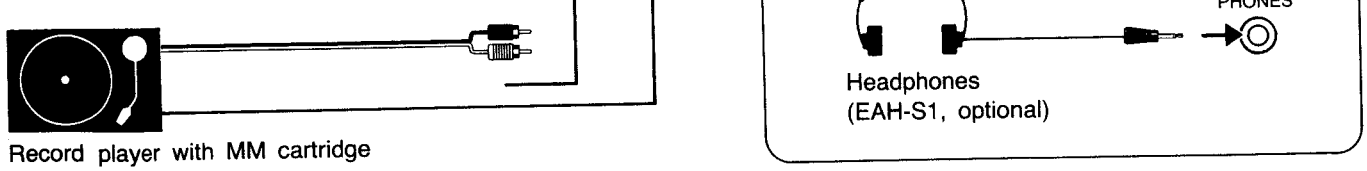
Notes:
- Some audio material is copyrighted. Recordings of such material must be limited to personal use.
- It is illegal to record telephone conversations unless all persons being recorded are advised beforehand.

■ Using the Set as a Stereo Cassette Deck

- **For recording; Function Selector... "LINE/PHONO"**
  Input Selector... "LINE IN"
- **For playback; Function Selector... "TAPE"**



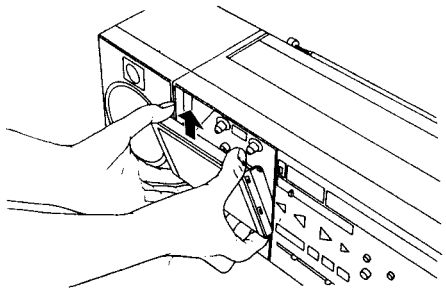
RX-C52		SL-N15
Function Selector	Input Selector	Output Selector
LINE/PHONO	PHONO	PHONO OUT
	LINE IN	LINE OUT



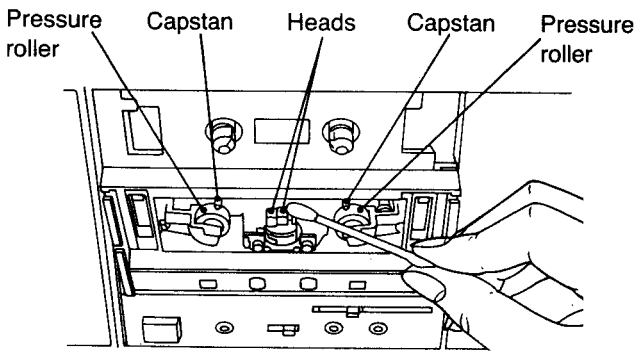
MAINTENANCE

The head assembly, capstan, and pressure roller are in constant contact with the tape. If these parts are dirty, the sound quality will be impaired. Get into the habit of cleaning the parts regularly (after every 10 hours or so of use) in accordance with the procedure outlined below.

1) Open the Cassette Compartment cover by pressing the Eject Button.
2) Lift up the cassette lid and remove it from the cassette holder in order to facilitate cleaning of the head assembly.



3) Press the Forward Button or Reverse Button.
   The Record/Playback Heads, Erase Head, Capstans and the Pressure Rollers can be seen. Clean them with a cotton swab, or a piece of wood with a soft cloth wound around it.



•Attaching the cassette lid

Push the cassette lid down into the cassette holder until it clicks into place.

Notes:

- If the heads are extremely dirty, clean them with a soft cloth dampened with a little alcohol.
- The use of cleaning tapes is not recommended, as some are abrasive and may cause premature wear of the heads. Simply, clean the head assembly as described.
- The use of a tape head demagnetizer is not necessary. The heads will demagnetize automatically after each recording.
- Do not bring metal articles or magnetic material, such as a screwdriver, near the head assembly.
- Do not clean the plastic cabinet with benzine or thinner. Clean it with a solution of soap and water.

SUGGESTIONS FOR SAFETY

Before using this unit, be sure to read applicable items of the operating instructions and these safety suggestions carefully; and afterwards keep them handy for future reference. Take special care to follow the warnings indicated on the unit itself as well as in the operating instructions.

1. Avoid places where there is water or humidity.
Do not use this unit near a bathtub, washbasin, swimming pool, or the like. Damp basements should also be avoided.

2. Don't allow water or any foreign object to get inside this unit.
Don't place small metal objects or anything containing liquid on or near the unit.

3. Avoid placement of the unit where it will be exposed to the direct rays of the sun, or where ventilation is inadequate.
Don't place this unit in a bookcase or between cabinets, or where curtains or furniture may obstruct the ventilation holes.

4. Place this unit away from heat-emitting appliances.
Never place this unit near a radiator, heat register, stove, or any other heat-emitting equipment. (Including Amplifiers).

5. Placement
Place the unit on a stable, vibration-free, level shelf or stand.

6. Wall or ceiling installation.
If the unit is to be mounted on a wall or ceiling, be sure to do so only as recommended in the operating instructions.

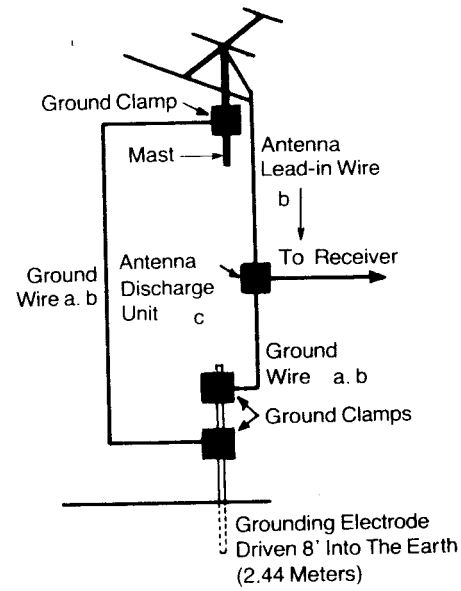
7. Check the voltage rating of this unit before connecting the unit to a power supply.
Be sure to connect the unit only to the type of power supply indicated in the operating instructions, or as indicated on the unit itself.

8. Concerning the power outlet(s) of this unit
If this unit has a built-in electric power receptacle, be sure to connect only equipment with a power rating not exceeding that indicated by the receptacle of this unit. (Only connect audio equipment to this outlet.)

9. Care of the power cord and plug.
Take care that the cord is not bent sharply (especially near its connection to the unit or near the plug), that nothing is placed on it, and that it is not pinched or crushed. Never take hold of the plug or cord if your hand is wet, and always be sure to grasp the plug body when connecting or disconnecting it.

10. Outdoor Antenna grounding.
If an outside antenna is connected to the receiver, be sure the antenna system is grounded so as to provide some protection against voltage surges and built up static charges. Section 810 of the National Electrical Code, ANSI/-NFPA. No. 70—1981, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See the figure to the right.

EXAMPLE OF ANTENNA GROUNDING AS PER NATIONAL ELECTRICAL CODE INSTRUCTIONS



a) Use No. 10 AWG (5.3 mm²) copper or No. 8 AWG (8.4 mm²) aluminum or No. 17 AWG (1.0 mm²) copper-clad steel or bronze wire, or larger, as ground wire.
b) Secure antenna lead-in and ground wires to house with stand-off insulators spaced from 4 feet (1.22 m) to 6 feet (1.83 m) apart.
c) Mount antenna discharge unit as close as possible to where lead-in enters house.

11. Power lines
When installing an outdoor antenna, install it as far as possible from power lines.

12. If the unit will not be used for a long period of time:
Be sure to disconnect the power cord.

13. Maintenance
Refer to the operating instructions for details.

14. Never attempt repairs yourself:
(a) If the power cord or plug is damaged.
(b) If a foreign object or liquid falls into the unit.
(c) If the unit is exposed to rain.
(d) If the unit does not function normally, or if operation shows an unusual change.
(e) If the unit has been dropped and the cabinet or chassis are damaged . . . etc.
Unplug the power cord and consult with a qualified technician (or the dealer from whom the unit was purchased or the nearest service center).

15. Repairs
Except for adjustments explained in the operating instructions, do not attempt any repairs yourself. Be sure to request service from a qualified technician (or your dealer or nearest service center).

PRODUCT SERVICE

Should your Panasonic product ever require service, refer to enclosed Directory for an Authorized Panasonic Servicenter or consult your authorized Panasonic dealer for detailed instructions.
SERIAL NUMBER: Located on the label inside the battery compartment.

IMPORTANT NOTE

The Power-Assist Mechanism in the tape section may sometimes not function adequately when the batteries are weak. The Power/Battery Check Indicator has gone out.
In this case, follow the procedure below:

1) Replace all batteries with new ones.
2) Press the Eject Button to ensure the cassette tape is properly installed, then close the Cassette Compartment cover.
3) Press the Power Switch to "■ OFF/SLEEP" once, and press again to "▬ ON".

Panasonic Company
Division of Matsushita Electric Corporation of America
One Panasonic Way, Secaucus, New Jersey 07094
Panasonic Hawaii Inc.
91-238 Kauhi St. Ewa Beach P.O. Box 774
Honolulu, Hawaii 96808-0774

RQX4318ZA F0284N0-1034

Printed in Japan